where competition heretofore has been reduced by regulation.

100. MCI is concerned that, because competition begins in areas with the greatest concentration of traffic, under the Commission's market-based approach "consumers that local competition has not yet reached will remain subject to the continuation of unwarranted excessive access charges while they wait for competition to develop."[86] Such concerns do not provide a foundation for a prescriptive regulatory approach that drastically reduces access charges across the board. Continuation of price caps eliminates cost shifting through access charges while allowing the incumbent LECs to meet competition as it develops. Cost recovery for incumbent LECs requires that access charges be supplemented by competitively neutral and nonbypassable charges on users of interstate access to recover the full cost of providing them access to the local exchange network.

101. MCI suggests that reducing access prices would eliminate funds that would be used to "cross-subsidize LEC entry into the competitive long-distance business."[87] The underlying assertion that incumbent LECs wish to subsidize their entry into long-distance ignores economic and business realities. LECs wish to enter the long-distance business because it would be profitable for them to do so. Moreover, customers demand the convenience of one-stop-shopping, so that all carriers have an incentive to offer a bundle of services to consumers. No company would add a service if the incremental returns from that service did not cover the incremental costs. MCI's argument that LEC entry into long-distance would not be profitable implies that LECs wish to lose money by adding this service offering. LECs seek to enter into long-distance markets because it is in their economic interest to do so. MCI's fear that LECs wish to enter simply to lose money is not well founded. Moreover, MCI's notion that the LECs should be deprived of cost recovery in access would seem to apply generally, even applying to revenues generated by "new business."[88] Following MCI's logic, the LECs should be made to suffer losses for

86. *Id.* at 43.
87. *Id.* at 14.
88. *Id.* at 13.

as many of their services as possible to eliminate internally generated funds that might be used to compete with MCI in long-distance markets. MCI's objective appears to be avoidance of competition rather than avoidance of irrational cross-subsidies. The Commission should rest assured that LECs, like any other business, will enter only market segments that are profitable and will have no incentive to cross-subsidize between lines of business. Cross-subsidies are features of regulated rate structures that are untenable in competitive markets.

D. "Reinitialization" of Price Caps Is Simply Opportunistic Behavior by Regulators and Free Riding by Competitors

102. The proposal to "reinitialize" price caps is a thinly-disguised means of lowering access charges by regulatory fiat rather than competition. The motivation of AT&T, MCI, and other entrants in calling for reinitialization is evident as well—they seek to obtain access below economic costs so as to free-ride on the incumbent LEC network. If the Commission were to accede to these demands to subsidize entrants, it would engage in regulatory opportunism—that is, it would take advantage of the reliance of incumbent LECs on the Commission's earlier regulatory commitments to price caps.

1. Regulatory Opportunism

103. What are the consequences of regulatory opportunism (self-interest seeking with guile) carried out through price-cap reinitialization? The incentive effects of future price-cap regulations are reduced because the incumbent firm understands that regulators and competitors will seek to profit from its efforts at cost reductions through increased efficiency and capital investment aimed at lowering operating costs. The incumbent firm that passes on these cost reductions through price cuts will be subject to regulators reneging on price-cap agreements and ratcheting down the caps. Such actions cannot be covered up simply by invoking "reinitialization" or some other euphemism.

104. MCI's economic witness, Professor John E. Kwoka, Jr., criticizes price caps on the grounds that regulators might behave opportunistically and that the regulated firm might anticipate their actions. Professor Kwoka states:

> Since cost efficiency is the primary motivation for most price cap plans, it is useful to note at the outset that the desirable efficiency properties emerge unambiguously only under specific conditions. Notably among these are myopic profit maximization by the firm and credible commitment to nonintervention by the regulator. If the regulated firm adopts an intertemporal view as opposed to single-period profit maximization, it may choose some degree of cost inefficiency today in order to secure a more profitable capped price in the future.[89]

Therefore, regulators are urged to behave opportunistically, on the grounds that they cannot be trusted anyway. When Professor Kwoka states that the regulated firm "adopts an intertemporal view," he does not mean that the firm maximizes the present discounted stream of future profits, as indeed it should do. Rather, he means that the regulated firm anticipates the regulator's unilateral abrogation of its price-cap commitments. Thus, price caps do not work, he concludes, because their incentive effects have been harmed by regulatory opportunism. And, since price caps do not work, why not repudiate existing agreements and "reinitialize" right now?

105. Thus regulators are urged to break the regulatory contract because it would be naive to trust regulatory commissions. MCI, on the basis on Professor Kwoka's analysis, observes that

> in actual practice nothing in price caps in any fashion alters the firm's incentives to maximize its private profitability at the expense of social objectives (*e.g.*, cost minimization, product innovation, and cost-based pricing).[90]

MCI's perverse line of reasoning is as follows: Because regulators cannot be trusted, price caps do not work, and hence the Commission should feel free to go back on its existing price-cap regulation. Reinitializing is OK, because everyone knew that you would do it anyway.

106. The analysis of MCI and Professor Kwoka also is incorrect with regard to incentives for cost minimization. Companies regulated with price caps have enhanced incentives for cost efficiency relative to rate-of-return regulation, even taking into account the credibility of regulatory commitments. To the extent that prices are decoupled from cost measurements, companies have added incentives to

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89. Professor John E. Kwoka, Jr., Statement on LEC Price Cap Reform, at 4, *attached to* Comments of MCI Communications Corp.

90. Comments of MCI Communications Corp. at 46.

devote efforts to reducing costs through operating efficiency, innovation, and cost-reducing capital investment.[91] When properly administered, price caps provide benefits relative to rate-of-return regulation because the regulated firm has an incentive to lower prices through innovation and investment. Moreover, when properly administered, price caps allow firms pricing flexibility to respond to competition. Finally, when properly administered, price caps reduce regulatory cross-subsidies because firms have economic incentives to rebalance rates. These benefits are indeed significantly reduced or eliminated by the downward ratcheting of the kind that AT&T, MCI, and others recommend. Although MCI's recommendations show the potential pitfalls of price-cap regulatory commitments, they do not imply that the Commission should "reinitialize" access prices. The effect of doing so would be to reduce the benefits from price-cap regulation. Given the market alternatives available for access, the best course is to remove price controls altogether, rather than to increase price regulation through "reinitialization."

2. Uncertainty and Competition: Price Caps versus Incumbent Handicaps

107. MCI argues for a cut in access charges and increased regulatory intervention, seeking to replace the supposed chaos of the marketplace with the certainties of regulation. In seeking "reinitialization" of price caps, MCI camouflages its desire for subsidized entry by suggesting that price caps lead to "unpredictability of prices," which is "disruptive to consumers seeking nothing more than low-cost service and to competitors and new entrants alike striving to make rational investment decisions."[92] There is little question that markets involve increased uncertainty relative to a rate-of-return regulated regime. In a competitive market, prices respond to changes in demand, costs, technology, and other factors. The difficulty in predicting changes in the underlying economic conditions is precisely why prices should be set by market forces rather than regulatory control. To argue that markets provide greater certainty for consumers and entrants such as MCI ignores the efficiencies and benefits from market

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91. *See* DAVID E. M. SAPPINGTON & DENNIS L. WEISMAN, DESIGNING INCENTIVE REGULATION FOR THE TELECOMMUNICATIONS INDUSTRY (MIT Press & AEI Press 1996).

92. Comments of MCI Communications Corp. at 46.

competition, and the inefficiencies in a regulated regime. The vagaries of competition provide little justification for delaying the opening of telecommunications markets as envisioned in the 1996 Act.

108. MCI seeks more than lower access charges, however. Its proposals are aimed at handicapping incumbent LECs and thus placing them at a competitive disadvantage relative to entrants. MCI elaborates on this theme: "Since prices are no longer tied to costs or any other benchmark, the dominant firm may set and change prices for any reason it chooses (*e.g.*, market perceptions, strategies, etc.)."[93] MCI is suggesting that, under price caps, prices are no longer "tied to costs" only in the sense that they are no longer tied to costs *through regulatory controls*. The suggestion that price caps free prices from cost considerations is incorrect, of course. Companies take into account their costs in making supply decisions. Companies continue to have an incentive to lower their costs to increase their operating returns. Moreover, price caps allow companies greater flexibility in adjusting prices to competition and other changes in market conditions.

109. What concerns MCI is that incumbent LECs can price competitively by reducing prices in competition with entrants. MCI is concerned that incumbents will respond to customer demand (what MCI calls "market perceptions") and to competitors' actions (what MCI calls "strategies"). But responses of these sorts are the mechanisms by which competition works. MCI would prefer to tie the hands of incumbents by fixing prices through regulation. That course of action would enhance MCI's competitive position at the expense of incumbent LECs. This is not how competition is supposed to work; rather, it is how entrants benefit from incumbent burdens. "Reinitialization" is a mechanism for MCI to gain an unmerited competitive advantage.

110. Deregulation should allow competition to expand. Deregulation should not create safeguards for specific competitors. MCI's quest for competitive advantage through regulation is evident:

> Given the dangers inherent in premature pricing flexibility under price caps, the Commission should not grant additional pricing flexibility unless there has been a clear

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93. *Id.*

> demonstration that existing pricing flexibility is inadequate to respond to the level of actual competition.[94]

This standard for granting price flexibility is even more stringent than the requirement that there be demonstrable competition. MCI goes far beyond the market-based and prescriptive proposals of the Commission. MCI would have the Commission require not only a showing of the presence of competition, but also a showing that pricing flexibility currently is not sufficient to respond to competitors. It would be difficult enough to quantify or even define "adequate" pricing flexibility. But such a test would be particularly unreasonable because the incumbent LEC would have to prove the *absence* of such flexibility.

111. Moreover, the incumbent LEC would have to prove the absence of pricing flexibility *after the fact*. In effect, AT&T, MCI, and others would continue on their present course of market entry into local telephony, protected from competition from the incumbent LEC. After entrants had made competitive inroads against an incumbent LEC handicapped by regulation, the incumbent would presumably be invited to show that its pricing inflexibility did not allow it to respond competitively to entrants. Once competitive disadvantages for the incumbent LEC had become a *fait accompli*, perhaps price controls would then be removed. Such a proposal by MCI would extend and perpetuate regulation. It is targeted at preventing incumbents from competing.

112. MCI further defends its proposal for reducing incumbent pricing flexibility by asserting that incumbent LECs "have failed to use their existing pricing flexibility."[95] This questionable proposition presumes that regulators and entrants have a better understanding of the business decisions of incumbent LECs than do the managers of those companies. As Professor Kwoka and MCI observe:

> The essential problem with geographic deaveraging is that it would allow an incumbent LEC to lower access charges in only those markets where it faced competitive entry.[96]

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94. *Id.* at 48.
95. *Id.*
96. *Id.* at 57 (citing Kwoka, *supra* note 89, at 21).

The idea of geographic deaveraging (and price flexibility in general) is to allow companies to price according to market forces, including cost and demand considerations. MCI laments that an incumbent LEC may respond by cutting prices in response to competition from competitive access providers and other suppliers of access. Thus, MCI and other entrants may be forced to compete by lowering their prices as well. The complaint expressed in the passage quoted above makes it evident that MCI seeks protection from competition. MCI does not seek unfettered price competition. Rather, MCI wishes to control, by regulatory fiat, when and where prices fall.

3. "Reinitialization" Is Rate-of-Return Regulation Revisited

113. The push for "reinitialization" of price caps is nothing more than a plan to reimpose rate-of-return regulation on incumbent LECs. Under the banner of competition and incentive regulation, commenters favoring this move are instead proposing just the opposite—a retreat to old-fashioned regulation. For example, Ad Hoc appeals for rate-of-return regulation on the following basis:

> Indeed, reinitializing to an 11.25% rate of return (or some newly-determined rate of return level) reinforces the intended mirroring of competitive market efficiencies that the price cap plan is designed to provided.[97]

Thus, imposing prices based on rates of return is somehow characterized as price-cap regulation. Moreover, rate-of-return regulation is also "mirroring" the competitive market. In addition to these implausible assertions, Ad Hoc suggests setting some new rate of return, presumably through a rate hearing. It bears emphasis, however, that rate-of-return regulation is more stringent than price-cap regulation. Moreover, rate-of-return regulation is not at all a "mirror" of competition. Ad Hoc's suggestion that rate-of-return regulation serves such a role is another instance of the doublespeak employed by constituencies that would enlist the Commission to accomplish their corporate objectives administratively.

114. Ad Hoc then likens rate-of-return regulation through "reinitialization" to market entry:

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97. Comments of the Ad Hoc Telecommunications Users Committee at 44.

> A reset of the access charge price levels to the authorized rate of return emulates the kind of pricing activity that would be expected in a competitive industry by the introduction of a new, efficient provider into a market that is presently allowing existing providers to earn supra-normal returns.[98]

By arguing for rate-of-return regulation, such reasoning contradicts Congress' purpose in the Telecommunications Act of 1996. It is misleading to characterize such command-and-control pricing as emulating market pricing. Moreover, Ad Hoc fails to recognize the high level of competition that is already present in the marketplace and asserts, incorrectly and without any attempt at factual support, that incumbent LECs are earning "supra-normal returns."

115. Although it recognizes that pricing based on rate-of-return regulation would have negative economic incentives for firms in the industry, Ad Hoc nonetheless characterizes rate-of-return regulation as "economically efficient pricing" and asserts, again without any support, that the benefits from increased regulation "*far* outweigh any negative effects that reinitialization might have in terms of 'dampening' the efficiency incentives of the price caps plan."[99] Ad Hoc would turn back the clock, tighten regulatory controls rather than loosen them, and artificially lower access prices through administrative decree.

116. AT&T argues for "reinitialization" because it is "easier to administer that the 'market-based' approach."[100] Even if that proposition were true, ease of administration does not argue for command-and-control regulation. The social costs of impeding competition and further distorting prices for telecommunications services far outweigh supposed savings in administrative costs. Even with ease of administration, AT&T's recommendation for increased regulation flouts the Telecommunications Act of 1996. Far from favoring forbearance, AT&T urges the Commission to increase regulation because there may be short-run administrative savings in comparison with the removal of pricing regulations. The Commission should resist the temptations of "easy regulation." Moreover, the notion that command-and-

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98. *Id.*
99. *Id.* (emphasis in original).
100. Comments of AT&T Corp. at 22.

control price regulation is "easy" is clearly misguided, as anyone familiar with rate hearings and the apparatus of rate-of-return regulation can attest. Yet AT&T offers a plan for alleviating administrative problems. It suggests that, although some LECs have hundreds of access elements in their traffic-sensitive and trunking baskets, only "four such elements . . . account for virtually all of the revenues."[101] AT&T then finds that "it is not surprising that an almost identically-defined unbundled network element exists for each of the key access elements."[102] AT&T thus recommends pricing those access elements in the same manner that the UNEs are priced. Indeed, AT&T would go further: "UNE rates, if anything, *overstate* access element costs."[103] Presumably, national "proxy" prices should be set by the Commission for those elements. AT&T thus recommends that the flawed approach that the Commission applied in the *First Report and Order* be extended to access pricing, except that even lower costs be attributed to UNEs in the case of interstate access. AT&T would go even further, because it disagrees with the Commission that common costs create revenue deficiency problems in the pricing of access that they do not create in the pricing of UNEs.

117. The Commission should reject AT&T's recommendation for increased regulation. AT&T's objective is transparent: to free-ride on the incumbent LEC's network at below-cost prices. The experience of traditional rate-of-return regulation and the complexity of the *First Report and Order* on interconnection show that AT&T's vision of administrative simplicity is a mirage. AT&T's proposal is a subterfuge to use regulation to obtain favorable prices that are below the economic cost of providing interstate access services. The only way to achieve administrative simplicity is through regulatory forbearance.

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101. *Id.* at 23.
102. *Id.* at 24.
103. *Id.* at 25 (emphasis in original).

III. THE OPPOSING COMMENTERS DISTORT THE INCUMBENT LEC'S ABILITY AND NEED TO RECOVER COSTS

118. The opposing commenters do not understand what it means for the FCC to give an incumbent LEC the reasonable opportunity to recover its economic costs. AT&T asserts that incumbent LECs "have already recovered, and almost certainly will recover in the future, their legitimately incurred and relevant prior expenditures."[104] That assessment rests on an understatement of the relevant costs and an implausibly optimistic view of the incumbent LEC's ability to recover those costs.

A. The Opposing Commenters Incorrectly Understate the Costs That an Incumbent LEC Is Entitled to Recover

119. AT&T argues that, in five respects, the incumbent LEC "grossly overstates the magnitude of relevant embedded costs."[105] Those five arguments are unpersuasive.

1. "Misallocation" of Investment in Network Enhancement

120. AT&T argues that incumbent LECs have "misallocated" costs to local telephony to "subsidize their non-telephony activities."[106] This supposed misallocation encompasses digital upgrading of the network and investment in central office plant to accommodate increased demand by residential customers for additional lines. AT&T cannot have it both ways. On the one hand, it endorses TELRIC pricing based on a futuristic network architecture; on the other hand, AT&T wants the FCC to second-guess network investments that, in AT&T's view, are not essential to the provision of the bare-bones local telephony. Needless to say, Congress rejected the POTS definition of telephony service by substantially expanding the concept of universal service in the Telecommunications Act of 1996.[107]

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104. *Id.* at 31.
105. *Id.*
106. *Id.*
107. 47 U.S.C. § 254(c)(1) ("Universal service is an evolving level of telecommunications services that the Commission shall establish periodically under this section, taking into account advances in telecommunications and information technologies and services.").

2. Misapprehension of the Effect on the Regulatory Contract of Switching from Rate-of-Return Regulation to Price Caps

121. AT&T argues that any of an incumbent LEC's capital investments made after January 1, 1990, when price cap regulation replaced rate-of-return regulation for interstate access, cannot give rise to underrecovery of costs: "After that date, there could be no legitimate shareholder expectation of guaranteed embedded cost recovery, if there ever was any such expectation."[108] That reasoning is fallacious because it mistakes a modification of one term in the regulatory contract for a termination of that contract.

122. Parties to a contract sometimes modify their agreement and thus supersede the old contract with a new one. With respect to the regulatory contract, modification has occurred when the regulator and the public utility have agreed, through the formality of public rulemakings, to alter a key provision of the contract, such as the manner in which the price of the utility's output is determined and whether the utility's profit level will be regulated along with its price. That modification has taken the form of the transition from cost-of-service, rate-of-return regulation to incentive regulation such as price caps.[109] State legislatures have also participated in some modifications of the regulatory contract by repealing, before Congress's enactment of the Telecommunications Act of 1996, statutes that prohibited competitive entry into regulated services such as local exchange telephony.[110] Some of the new regulatory structures even carry the name "social contract."[111]

123. Changes in regulatory procedures, such as a switch from rate-of-return regulation to a system of price caps do not necessarily represent a termination of the regulatory contract. Generally, such

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108. Comments of AT&T Corp. at 32.

109. *See* SAPPINGTON & WEISMAN, *supra* note 91.

110. *E.g.*, CAL. PUB. UTIL. CODE § 2882.3.

111. Alternative Regulatory Frameworks for Local Exchange Carriers, 33 C.P.U.C.2d 43, 107 P.U.R.4th 1, I.87-11-033 *et al.* (Cal. Pub. Utils. Comm'n 1989); Proposed Policies Governing Restructuring California's Electric Services Industry and Reforming Regulation, R.94-04-031, I.94-04-032, Decision 94-12-027, 151 P.U.R.4th 73 (Cal. Pub. Utils. Comm'n 1994); New England Tel. & Tel. Co., D.P.U. 94-50, 153 P.U.R.4th 355 (Mass. Dep't Pub. Utils. 1994); New England Tel. & Tel. Co., DR 89-010, Order No. 20,149, 123 P.U.R.4th 289 (N.H. Pub. Utils. Comm'n 1991); Comprehensive Review of Telecommunications, Dkt. No. 1997, Order No. 14038, 138 P.U.R.4th 620 (R.I. Pub. Utils. Comm'n 1992).

changes in telecommunications regulation have preserved the regulator's obligation to provide the utility with an opportunity to earn a competitive rate-of-return on its investment.

124. The basic system of price caps often keeps in place other aspects of rate regulation. The regulator continues to control rates through the caps; the utility has price flexibility below the price limit. Price-cap formulas frequently feature sharing rules that require the utility to divide earnings above some threshold amount with its customers. Regulators typically continue to assume responsibility for the financial health of the regulated utility. The basic dimensions of the regulatory contract remain in place if regulators retain the system of entry controls as revenue protection devices and maintain the utility's service obligations.

125. For example, the California Public Utilities Commission (CPUC) included *financial and rate stability* among its goals in establishing its system of incentive regulation for local exchange carriers called the "New Regulatory Framework."[112] The financial stability goal meant that the financial condition of the local telephone exchange carriers should not change markedly under New Regulatory Framework. According to the CPUC: "Stability is an important aspect for any plan. As financial stability promotes rate stability, customers, utilities and other market participants will each benefit from predictable prices for utility services."[113] Despite the use of a price-cap formula for adjusting rates, the CPUC continued extensive monitoring of the regulated companies' financial and operational information, indicating the regulator's continued responsibility for the financial return of the LECs. The CPUC indicated its intent to maintain the utilities' financial returns through *increased* regulation:

> A regulatory structure which combines the price cap indexing approach with a sharing mechanism can provide protection to both shareholders and ratepayers from the risks that the indexing method may over- or under-estimate the revenue changes which are needed to keep the utility financially healthy, but not too healthy. The increased regulatory

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112. As the CPUC defines it, the New Regulatory Framework is an incentive-based regulatory framework "centered around a price cap indexing mechanism with sharing of excess earnings above a benchmark rate of return level." Alternative Regulatory Frameworks for Local Exchange Carriers, 33 C.P.U.C.2d 43, 107 P.U.R.4th 1, I.87-11-033 *et al.*, Decision 89-10-031 (Cal. Pub Utils. Comm'n 1989).

113. 33 C.P.U.C.2d at 198.

> involvement required to implement and maintain a sharing mechanism is a price we are willing to pay at this time for this added protection.[114]

Thus, the switch to incentive regulation, while maintaining other components of the regulatory contract, represents at most modification, not abandonment, of the contract.

126. Changes in the mechanism of rate adjustment are an administrative procedure instead of a fundamental change in contract terms. Price-cap mechanisms provide incentives for efficiency by allowing utilities to keep some of the gains from cost reductions. Such benefits existed under rate-of-return regulation as a consequence of lags between rate hearings. Price caps confer pricing flexibility that allows the regulated utility to carry out some limited changes to its rate structure, while keeping regulatory control over total revenues. Incentive regulation begins to constitute a fundamental renegotiation of the regulatory contract only when it is coupled with relaxation of entry controls and changes in the utility's obligations to serve.

127. The use of price caps and other forms of incentive regulation does not alter the manner in which damages for breach of the regulatory contract are calculated. The damages should still equal the present value of net revenues. The amount of damages should be adjusted to the extent that the pricing method alters the net revenue expectations of the utility. The relaxation of entry barriers reduces earnings, and competitive opportunities allow for mitigation as before. The formula for calculating damages thus remains the same.

3. Shortened Useful Lives of Depreciable Assets

128. AT&T argues that incumbent LECs' "arguments that underrecoveries have resulted from shortened useful lives and technological displacement ignore the fact that the ILECs have had ample opportunity to seek adjustments to price regulation based upon supported assessments of actual useful remaining lives of relevant local network plant."[115] This argument is fallacious in several respects.

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114. *Id.* at 34.
115. Comments of AT&T Corp. at 32.

First, it ignores that the protracted depreciation schedules in regulated industries function as a kind of bonding mechanism that holds the regulated firm's capital "hostage" over the life of the regulatory contract so as to ensure the regulated firm's satisfactory performance. Obviously, regulators could permit more accelerated depreciation schedules that approximated the useful economic lives of the assets placed in service. But regulators routinely decline to do so. It is therefore disingenuous to suggest today that incumbent LECs previously could have received accelerated depreciation for their network investments if they had simply asked regulators for it.

129. Second, AT&T argues that incumbent LECs "should not be permitted to transform commercial and technological developments that they failed to anticipate into subsidies from consumers."[116] This argument fails to recognize that the risks of commercial and technological change that AT&T would place on the incumbent LEC are endogenous to the regulatory regime, pursuant to which the LEC could recover the cost of its investment only according to allowed depreciation schedules. It is tempting to say that an incumbent LEC failed to anticipate a commercial or technological change as of a certain date and, therefore, must bear the loss for the undepreciated portion of its asset base that becomes stranded at that moment. But that line of reasoning implicitly (and erroneously) assumes that the incumbent LEC voluntarily submitted to a longer depreciation schedule than the true economic life of its assets. The fact that a depreciation shortfall existed at the time of the commercial and technological change is simply another way of saying that the regulator knowingly constrained the LEC's ability to minimize the extent to which its shareholders would be made to bear such risk.

130. Third, AT&T's argument selectively forgets that cost recovery for the investments at issue has been placed in jeopardy by *regulatory* actions of the FCC. In 1992 the Commission's expanded interconnection decision enabled competitive access providers to collocate their fiber-optic networks with

116. *Id.* at 32-33.

local exchange networks to provide interstate telephone service for businesses.[117] The FCC broadened its expanded interconnection decision in 1993.[118] Those Commission actions in effect lifted entry restrictions into key portions of the interstate access market. Financial economists have estimated that the Commission's expanded interconnection decisions reduced the equity value of the seven RBOCs by $14.9 billion.[119] The Commission's May 1991 NPRM on expanded interconnection[120] alone is associated with a $7.8 billion decline in equity value for the RBOCs, which corresponds to cumulative abnormal return of -6.50 percent.[121] It is incorrect to say that this loss in equity value—which would translate directly to a diminished value for the RBOCs' undepreciated local exchange assets—resulted from "commercial" or "technological" changes that the RBOCs failed to anticipate. Rather, it reflected the diminished earning capability of the RBOCs' existing asset base, given the FCC's change in regulatory policy concerning the provision of interstate access by competitive access providers.

4. The Erroneous Reference to the Reproduction Cost of a Technology That Would Not Be Reproduced Is Another Manifestation of the Janus Artifice

131. AT&T argues that "for much of the pre-1990 ILEC plant, forward-looking costs are likely to *exceed* historical costs carried on ILEC books and, thus, there is obviously little risk of underrecovery."[122] AT&T asserts that "new narrowband services and technological developments" in broadband services will "increase the likely value of existing copper cable" such that "current reproduction costs may be *higher* than historical embedded costs."[123] This reasoning is fallacious.

132. It may turn out, as AT&T assumes, that copper plant will be more costly to replace in

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117. Expanded Interconnection with Local Telephone Company Facilities; Amendment of the Part 69 Allocation of General Support Facility Costs, Report and Order and Notice of Proposed Rulemaking, CC Dkt. Nos. 91-141, 92-222, 7 F.C.C. Rcd. 7369 (1992).

118. Expanded Interconnection with Local Telephone Company Facilities; Amendment of the Part 69 Allocation of Part 36 of the Commission's Rules and Establishment of a Joint Board, Second Report and Order and Third Notice of Proposed Rulemaking, CC Dkt. Nos. 91-141 (Transport Phase I), 80-286, 8 F.C.C. Rcd. 7374 (1993).

119. Kevin C. Green & Kenneth M. Lehn, *The Effect of Enhanced Competition on the Equity Values of the Regional Bell Operating Companies*, 16 MANAGERIAL & DECISION ECON. 469, 472-74 (1995).

120. Expanded Interconnection with Local Telephone Company Facilities, Notice of Proposed Rulemaking and Notice of Inquiry, CC Dkt. No. 91-141, 6 F.C.C. Rcd. 3259 (1991).

121. Green & Lehn, *supra* note 119, at 473 (z-statistic = -3.01).

122. Comments of AT&T Corp. at 33 (emphasis in original).

123. *Id.* (emphasis in original).

the future than its historical embedded cost and that the LECs will be able to use such plant to deliver new services. But from that premise it does not follow that copper plant would be replaced. When an incumbent LEC eventually needed to replace such plant, the relevant economic question that the LEC would face would be whether copper wire was the cheapest means of supplying the necessary distribution services. If wireless loops were cheaper than copper loops at that point, the incumbent LEC would replace copper with wireless. Therefore, the relevant measure of replacement cost to use today to value an incumbent LEC's copper cable is the stand-alone cost of the most efficient substitute technology for performing the desired service. It may indeed be true that the cost today to reproduce a daisy-wheel printer placed in service in 1980 would be higher than its historical embedded cost; but no one would ever value a daisy-wheel printer above the stand-alone cost of a laser printer available today that was capable of delivering service of equal or superior quality.

133. The fallacy in this reasoning by AT&T reveals a larger logical inconsistency, which is another example of the Janus Artifice described earlier. AT&T endorses the notion that an incumbent LEC should be required to price UNEs and interstate access on a forward-looking basis that assumes a hypothetical level of efficient network architecture that does not correspond to the manner in which the LEC's network actually evolved over time to serve customer demand. Yet, when it comes to establishing the replacement value of the existing assets that AT&T believes are so inefficiently deployed by the incumbent LEC in its current network architecture, AT&T maintains that new demand will "increase the likely value of the existing copper cable."[124] Thus, whether the incumbent LECs have suffered stranded costs depends on AT&T's purpose at the moment. If AT&T is calculating forward-looking costs for purposes of pricing UNEs and interstate access, then large portions of an incumbent LEC's base of undepreciated assets should be ignored as not being sufficiently representative of the ideal network architecture of the future. But when asking whether the shareholders of the same incumbent LEC may

124. *Id.* at 33.

have been deprived a return of their invested capital because of the interaction between regulatory policies concerning depreciation and those concerning entry into formerly protected markets. AT&T presents a rosy scenario of the escalating value of embedded copper plant. Why, one might ask, if AT&T believes that copper plant is so attractive, did the company pay $11.5 billion in stock to acquire McCaw, the largest provider of wireless telephony services, instead of spending even a fraction of that amount purchasing the wireline assets of non-RBOC local exchange carriers?[125]

5. The Red Herring of Imprudence and Inefficiency

134. Finally, AT&T implies that an incumbent LEC cannot recover its existing embedded costs because they "reflect an accounting measure of actually incurred costs, but the prudence and efficiency of those expenditures have never been demonstrated."[126] One can turn the proposition around: Has any party proven that those expenditures were imprudent when made or are now inefficient? It is hardly appropriate to adopt AT&T's view that all incumbent LEC investment should be presumed to be imprudent until proven otherwise. The fact that in many cases price caps for interstate access have not been binding is powerful prima facie evidence that incumbent LECs have delivered the productive and dynamic efficiency that incentive regulation was designed to elicit.

135. If AT&T believes that it has paid prices for interstate access that reflect imprudent and inefficient investments made by incumbent LECs, what actions has it taken before now to have costs disallowed? It is late in the game, when addressing the taking of private property belonging to the shareholders of the incumbent LECs, for AT&T to imply that such property is a heap of wasteful investment. Moreover, AT&T is logically inconsistent. On the very same page of comments, AT&T simultaneously argues (1) that "there is obviously little risk of underrecovery" because the incumbent LEC presciently invested in sufficient copper cable capacity to meet growing demand for new narrowband

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125. Section I(D) of the Modification of Final Judgment forbade AT&T from "acquir[ing] the stock of assets of any BOC," but it did not forbid AT&T from acquiring other LECs.

126. Comments of AT&T Corp. at 33.

and broadband services, but that (2) recovery of the incumbent LEC's costs should be impeded (in ways that AT&T does not make clear) because "the prudence and efficiency of those expenditures have never been demonstrated."[127]

B. The Opposing Commenters Confuse Which Revenues Are Relevant to Determining Whether a LEC Can Recover the Cost of Providing Regulated Services, Including Interstate Access

136. AT&T argues that "ILECs now have ample opportunities to recover embedded costs through the provision not only of regulated local exchange services, but also of other services such as yellow pages, customer calling services, enhanced services, and Block B cellular franchises."[128] Moreover, AT&T asserts that "[t]he Commission may consider intrastate revenues so long, as here, they are not used to justify a rate that would otherwise be confiscatory."[129] Elsewhere in its discussion of cost recovery, AT&T asserts that incumbent LECs currently earn "monopoly rents."[130] This entire discussion confuses the analysis of whether the regulated operations of the incumbent LEC can remain financially viable under the pricing rules that AT&T advocates.

137. The Telecommunications Act of 1996 added section 252(d)(1) to the Communications Act, which states that the price of interconnection or an unbundled network element "(A) shall be (i) based on the cost (determined without reference to a rate-based proceeding) of providing the interconnection or network element (whichever is applicable), and (ii) nondiscriminatory, and (B) may include a reasonable profit."[131] In its *First Report and Order* the FCC related section 252(d)(1) to the agency's notion of TELRIC and reasoned "that, under a TELRIC methodology, incumbent LECs' prices for interconnection and unbundled network elements shall recover the forward-looking costs directly attributable to the specified element, as well as a reasonable allocation of forward-looking common costs."[132] The *First Report and Order* also refers to "profit."[133]

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127. *Id.*
128. *Id.* at 37.
129. *Id.* at 37 n.63.
130. *Id.* at 35.
131. 47 U.S.C. § 252(d)(1).
132. *First Report and Order* ¶ 682.

138. The meaning of "profit" in section 252(d)(1) and the *First Report and Order* is relevant to the pricing of interstate access in three respects. First, the manner in which profit is defined for purposes of unbundling and local interconnection will influence the extent to which the intrastate-regulated activities of the LEC's operations are making a positive or negative contribution to revenue adequacy. Second, the availability of the market-based option that the Commission proposes for the pricing of interstate access is expressly conditioned on, among other things, the incumbent LEC having reached agreements with CLECs for the provision of resale and UNEs that conform to the Commission's TELRIC-based pricing recommendations, which include its statutory interpretation of "profit." Third, the extent to which one can say that the margins earned by incumbent LECs on their provision of interstate access contain "excess profit" is intertwined with the pricing of UNEs and resale and the sufficiency or inadequacy of charges on end users or interexchange carriers.

139. A firm earns a "reasonable profit" when its *economic profits* equal zero. Economic profits are zero when total revenues equal total costs, inclusive of a competitive return on capital. The incumbent LEC's return on capital equals the sum of the return on capital for its incremental, joint, and common costs. The allowance in section 252(d)(1) for a "reasonable profit" is accomplished when the incumbent LEC's prices for its regulated services are established so that, on average, the LEC earns zero economic profits on the entire array of regulated services that it supplies. That is, the firm's rates should be established so that, on average, it earns zero economic profits on its regulated services as a whole. Of course, random market factors may cause the LEC's profits to exceed or fall below that value in any particular period.

140. Four points bear emphasis because they have generated controversy in arbitration proceedings to establish prices for UNEs. First, *firms* earn profits; individual products or services produced by firms do not. It is therefore an incorrect reading of section 252(d)(1) to say that no

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133. 47 U.S.C. § 252(d)(1); *First Report and Order* ¶ 699.

individual UNE may earn more than a "reasonable profit." Such a reading of that statute would make economic sense only if each network element were supplied by a firm producing only that element as its output and nothing else. It is equally specious for the opposing commenters to accuse the incumbent LECs of earning excessive or "monopoly" profits on interstate access.

141. The entire exercise of unbundling addressed in sections 251 and 252 presupposes, to the contrary, that the incumbent LEC is a multiproduct firm. Furthermore, the continuation of regulatory policies that impose public service obligation on the incumbent LEC, and the continuation of any subsidies in the retail rate structure, imply that the incumbent LEC will earn a *negative* contribution to its overall profitability from some services (such as basic local service and service to high-cost customers for whom the incumbent LEC is obliged to serve as the carrier of last resort). Given that regulators continue to embed subsidies into the rate structure, it will necessarily be the case that the incumbent LEC will have to earn returns to certain other services that, if viewed in isolation, would appear to yield positive economic profit. For that reason, the proper reading of section 252(d)(1) corresponds to the economic reality of the situation: Regulators must allow the incumbent LEC the opportunity to earn a "reasonable profit"—which is to say, a zero economic profit—across the full aggregation of regulated services that the LEC is required to offer, including interstate access.

142. Second, the only profit that is relevant for purpose of section 252(d)(1) is the profit on the incumbent LEC's *regulated* services. Typically an incumbent LEC is owned by a holding company that has unregulated activities, such as investments in overseas telecommunications ventures or investments in domestic activities that are not regulated. The profit that the incumbent LEC's parent earns from those unregulated activities are not relevant to the definition of "reasonable profit" under section 252(d)(1) because they do not flow from investments made under the regulatory contract in a particular state to discharge the LEC's assumption of public service obligations there. By analogy, the Supreme Court long ago announced as a matter of takings jurisprudence in *Brooks-Scanlon Co.* v. *Railroad*

Commissioner that it is impermissible to judge whether rate regulation is confiscatory by including the returns to unregulated operations of the company in question.[134]

143. Third, whether the incumbent LEC earns a profit must be determined with respect to its regulated services *in the particular jurisdiction under consideration*. A state PUC cannot average profit figures across multiple states to determine whether the prices that it sets for UNEs in its own state allow the incumbent LEC there the opportunity to earn a reasonable profit. The California Public Utilities Commission, for example, cannot deny an incumbent LEC in California the opportunity to earn a reasonable profit when it sell UNEs to entrants in California on the rationale that the Public Utilities Commission of Ohio has allowed the LEC's sister company in Ohio to earn a return there that the California regulators deem to include economic profit. If regulators could do so, they would be tempted to engage in a form of opportunistic behavior: They could "export" to other states the burden of ensuring that the parent company of the various sister LECs achieved revenue adequacy for its local exchange operations as a whole. But, of course, once one state acted in that opportunistic manner, others would follow and it would be impossible for remaining states to cover the parent company's resulting deficit from its local exchange operations. That form of opportunism can occur between the federal government and the states because of the jurisdictional separation of the LEC's common costs.

144. A fourth and related point concerns the argument advanced by entrants into local telephony that uncompensatory prices for UNEs (and for resale, for that matter) are legally permissible because the Telecommunications Act of 1996 liberated incumbent LECs to enter other markets—particularly the interLATA long-distance market—as a quid pro quo. That argument is not plausible if one assumes, as the interexchange carriers maintain, that the in-region interLATA market is competitive. (That proposition, however, is the subject of bitter controversy as a result of the empirical

134. 251 U.S. 396, 399 (1920) ("The plaintiff may be making money from its sawmill and lumber business but it no more can be compelled to spend that than it can be compelled to spend any other money to maintain a railroad for the benefit of others who do not care to pay for it.").

research by Professor Paul MacAvoy suggesting that long-distance markets exhibit tacit collusion among the three major carriers.[135]) If interLATA markets *are* competitive, then simple arithmetic disposes of the quid pro quo argument. By definition an incumbent LEC that is forced to accept losses in local exchange services because of unbundling at uncompensatory prices will earn a return that is below the competitive return on capital. The only way for the incumbent LEC to earn a competitive return overall once it may provide in-region interLATA services is for the LEC to earn supracompetitive returns from those new long-distance services. But if those services are by hypothesis currently earning only a competitive return for the firms providing them, then the incumbent LEC would be averaging a competitive return on capital in the interLATA market with a less-than-competitive return on capital in the local exchange market. The result of that averaging is necessarily an overall return to the LEC that is below the competitive return on capital. In short, the quid pro quo argument is plausible only if those advancing it make what is essentially an admission against interest—namely, that interexchange carriers currently are able to earn supracompetitive returns.[136]

C. Market Share, Market Power, and the Counterfactual Rhetoric of an Unregulated Incumbent LEC Monopoly Free of Mandated Cross-Subsidies

145. The opposing commenters repeatedly claim that the current regime of access prices preserves monopoly rent.[137] But that criticism is based on a distorted view of the real world. To assume that a regulated monopolist is routinely and consistently earning monopoly rents is counterfactual: The *raison d'etre* of public utility regulation is to prevent a firm thought to be a natural monopoly from setting the profit-maximizing price of an unconstrained monopolist. Contrary to the opposing commenters' implicit assumption, regulation of interstate access charges in place before the enactment of the 1996

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135. PAUL W. MACAVOY, THE FAILURE OF ANTITRUST AND REGULATION TO ESTABLISH COMPETITION IN MARKETS FOR LONG-DISTANCE TELEPHONE SERVICES (MIT Press & AEI Press 1996).

136. Alternatively, one could argue that the incumbent LEC could earn supracompetitive returns because it would have substantially lower costs of marketing long-distance services to customers than the interexchange carriers have. That assumption is not plausible given that the incumbent LECs would be novices at marketing interLATA services and would face three or more established competitors.

137. *E.g.*, Comments of AT&T Corp. at 35.

federal legislation should be presumed to have limited rather than facilitated the extraction of monopoly rents. Nonetheless, expert witnesses testifying on behalf of entrants in state arbitration proceedings following the *First Report and Order* asserted, without empirical support, that the incumbent LEC "has substantial market power in many areas."[138] Similarly, in this proceeding Professors Baumol, Ordover, and Willig assert, though without empirical substantiation, that the "bottleneck in local telephony confers substantial market power on the ILECs and, *in the absence of regulatory restraints*, would allow the ILECs to price . . . network components significantly above their true costs."[139] Incumbent LECs, of course, are *not* permitted to price "in the absence of regulatory constraints." If state regulation has failed to prevent incumbent LECs from earning monopoly rents, then state regulators should now correct their past failures directly. Indeed the Telecommunications Act of 1996 commands them to do so if they have not done so already.[140]

146. Moreover, if monopoly rents do persist in the pricing of some final product sold by the regulated incumbent LEC, it is more likely than not that regulators have authorized or mandated the extraction of those rents as part of an overall rate structure that is rife with cross subsidies from one customer group to another. It is certainly possible, in other words, that the prices for specific services sold by the regulated incumbent LEC contain rents that the firm is obliged to extract from one set of customers and then dissipate in the course of subsidizing other services that the regulator orders the LEC to sell below cost. In that case, the recovery of the contributions to margin on the services supposedly generating the monopoly rents represents nothing more than a preservation of state-mandated cross subsidies; those positive contributions to margin should not be interpreted by the FCC in isolation as a preservation of monopoly rents that, on balance, flow from the combined classes of all customers to the

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138. Rebuttal Testimony of Frederick R. Warren-Boulton at 7, In the Matter of AT&T Communications of the Southwest, Inc.'s Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with GTE Midwest Inc., Case No. TO-97-63 (Mo. Pub. Serv. Comm'n, filed Oct. 21, 1996) (prepared for AT&T Communications of the Southwest, Inc.) [hereinafter *Warren-Boulton Rebuttal Testimony*]; *see also* KASERMAN REPORT, *supra* note 75, at 6 (describing incumbent LEC services "that remain subject to supply under conditions of significant monopoly power").

139. Baumol-Ordover-Willig Affidavit at 4 ¶ 7 (emphasis added).

140. 47 U.S.C. § 253(a) (abolishing state and local legal barriers to entry).

incumbent LEC's shareholders. In any event, it is surely preferable for the regulator to eliminate the system of cross subsidies altogether by rebalancing the rate structure, rather than to reject the M-ECPR and instead price network access selectively on the basis of incremental cost while continuing to require the incumbent LEC to price various other services below cost. Such a selective approach would violate sound economic analysis and deny the incumbent LEC the opportunity to recover its costs, which eventually would destroy the LEC's financial solvency and induce disinvestment in the network.

147. The unsubstantiated assertion that the incumbent LEC enjoys unconstrained market power flies in the face of established thinking in antitrust law. Legal and economic scholars have long recognized that naïve reliance on market shares in antitrust cases can produce diagnoses of monopoly power where none exists. Market power refers to the ability of a firm to raise price above the competitive level without losing so many sales as to make the price increase unprofitable. In terms of maximizing consumer welfare, public policy should ask whether a market produces the textbook result of perfect competition in the sense that price (in an industry without economies of scale or scope) is driven down to marginal cost. Market shares are merely an indirect indicator of whether price is likely to exceed marginal cost. In the stylized, perfectly competitive market, where price equals marginal cost, there are so many firms that no one firm has more than a small share of total sales made in the market.

148. The danger with market-share analysis, however, is that courts, regulators, and legislators will continue to rely upon it when it produces misleading inferences of market power or when more direct evidence of the margin between price and cost is readily available. The misdiagnosis of market power is especially troublesome in regulated industries like local telephony, which are subject to universal service obligations.

149. Economists have traditionally measured the market power of some firm i through the Lerner index L_i, named for economist Abba Lerner.[141] The Lerner index is an estimate of the

141. Abba Lerner, *The Concept of Monopoly and the Measurement of Monopoly Power*, 1 REV. ECON. STUD. 157 (1934).

proportion by which firm i's price P_i deviates from its marginal cost C_i' at the firm's profit-maximizing output:

$$L_i = (P_i - C_i')/P_i.$$

In a seminal article published in 1981, Professor William Landes and Judge Richard Posner derived an equivalent form of the Lerner index that is highly useful in antitrust analysis.[142] It enables one to infer the market power of any firm i by simultaneously considering the entire market's price elasticity of demand ϵ^d_m, firm i's market share S_i, and the price elasticity of supply of the j other firms on the competitive fringe of the market ϵ^s_j:

$$L_i = S_i/(\epsilon^d_m + \epsilon^s_j(1 - S_i)).$$

Through this restatement of the Lerner index, Landes and Posner provided a valuable insight. As long as a court considers all three variables—ϵ^d_m, S_i, and ϵ^s_j—it will arrive at the same estimate of a firm's market power regardless of how it defines the relevant market.[143] If one variable (often S_i, the share of the supposedly "relevant" market) is overstated or understated, then the other two variables will assume larger or smaller values that precisely offset the distorted estimate of the first.

150. Landes and Posner noted that high market shares in a price-regulated industry are either meaningless from a competitive perspective or indicative of prices that are set at or below marginal cost—that is, at or below the price that would obtain in a competitive equilibrium:

> To the extent that regulation is effective, its effect is to sever market power from market share and thus render our analysis inapplicable. This is obviously so when the effect of regulation is to limit a monopolist's price to the competitive price level. A subtler effect should also be noted, however. Regulation may increase a firm's market share in circumstances where only the appearance and not the reality of monopoly power is created thereby. For example, in many regulated industries firms are compelled to charge uniform prices in different product or geographical markets despite the different costs of serving the markets. As a result, price may be above marginal cost in some markets and below marginal cost in others. In the latter group of markets, the regulated firm is apt to have a 100% market share. The reason is not that it has market power but that the market is so unattractive to sellers that the only firm that will serve it is one that is

142. William E. Landes & Richard A. Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937, 944–45 (1981).
143. The price elasticity of demand, though a negative number, is often expressed as its absolute value, as it is here.